

II. REMARKS

RESPONSE TO RESTRICTION REQUIREMENT

Restriction Under 35 U.S.C. §121

- The Examiner's Position:

The Examiner has agreed to combine Groups III and IV set forth in the previous restriction and proceed with examination of the elected group III together with group IV. Claims 85 – 176 (groups I and II) are withdrawn from consideration. The examiner requests that the applicant identify why a cited reference is “pertinent to a claimed optical recording media” including relevant portions of the document cited.

- Applicants' Response:

Applicants extend their appreciation to the Examiner for combining elected group III together with group IV.

Applicant acknowledges that upon cancellation of claims to a non-elected invention, and the restriction requirement being made final, that inventorship needs to be re-investigated to determine if one or more of the currently named inventors are no longer an inventor of at least one claim in the application. It is believed on re-investigation that the inventorship stands correct on the application.

In regard to the Examiner's request that the application identify why a cited reference is “pertinent to a claimed optical recording media” including citation to relevant portions of the document cited. Applicants note MPEP 609, for the proposition that a “concise explanation of relevance” is only required if the information listed is not in the English language, and a complete translation of the information into English is not submitted. Applicants believe that all references supplied to the Examiner are in the English language, and that such requirements have been met. Further Applicants note that the Examiner has initialed each of the references on the

IDS as having been considered by him, and therefore Applicants assert that any such objection is moot. If the Applicants are wrong in regard to their duty with respect thereto, in particular in light of the Examiner having already having considered each reference, Applicants will gladly comply with such a request.

RESPONSE TO OBJECTIONS

In Respect of Disclosure

- **The Examiner's Position:**

The Examiner has objected to the disclosure due to perceived informalities. The Examiner argues that the disclosure on page 7 at lines 8 – 10 is technically incorrect. The Examiner has requested that the sentence be deleted.

- **Applicants' Response:**

With traverse, and without comment as to the technical aspects of the statement made therein, Applicants have as deleted the sentence abridging lines 8 – 10 on page 7 of the specification as set forth in the "Amendments to Specification" above.

RESPONSE TO REJECTIONS

35 U.S.C. §112, Second Paragraph

- The Examiner's Position:

The Examiner has rejected claims 178 – 186 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claiming subject matter. The Examiner asserts that in claim 178, line 7, “dis-uniformity” should read “dis-uniformity” or “non-uniformity.” In respect of claims 186, 207, 229, the Examiner notes that “benzindodicarbocyanines” should read “benzoindodicarbocyanines.”

- Applicants' Response:

Applicants extend their appreciation to the Examiner for noting such typographical errors. In conformity with the Examiner's suggestion, claim 178 has been amended herein to recite a “dis-uniformity” and claims 186, 207, 229 now use “benzoindodicarbocyanines.” It is respectfully asserted that such amendments overcome the Examiner's rejections under 35 U.S.C. §112, second paragraph.

35 U.S.C. §102

The Examiner has rejected all of the pending claims, with the exception of claims 181, 182, 183, and 185, under 35 U.S.C. §102, although claims substantially identical to claims 177 – 251 of this application are found to be novel, comprising an inventive step and of industrial applicability in PCT sister CIP application No. PCT/US01/10256 by Examiner Thang V. Tran. For the reasons set forth below, Applicants respectfully assert that Examiner Tran is correct in his analysis. A copy of the International Preliminary Examination Report and a copy of the claims in that case as amended under Article 34 are attached to the IDS which accompanies this response. A copy of the search report in respect of the claims originally in the PCT application is also attached to the IDS which accompanies this response.

Applicant respectfully traverses all of the Examiner's 35 U.S.C. §102 rejections in part on the basis that the Examiner has failed to demonstrate that each and every element of the any of the claims is found in the references cited.

- **35 U.S.C. §102(b) and (e)**

- **The Examiner's Position:**

The Examiner has rejected claims 177, 187 – 202, 204 – 217, 219 – 226, 228, 230 – 237, 239 – 242 and 245 – 251 under 35 U.S.C. §102(b) as being "fully anticipated by" U.S. Patent No. 5,204,852 to Nakagawa *et al.*, as well as U.S. Patent No. 5,815,484 to Smith *et al.* (see paragraphs 8, 9, and 14).

The Examiner has rejected claims 177, 187 – 202, 204 – 217, 219 – 226, 228, 230 – 237, 239 – 242 and 245 – 251 under 35 U.S.C. §102(e) as being "clearly anticipated by" U.S. Patent No. 5,963,536 to Vasic *et al.*, U.S. Patent No. 6,104,686 to Whitcher *et al.*, and U.S. Patent No. 5,815,484 to Smith *et al.*.

Applicants' Response:

Applicants respectfully traverse the Examiner's rejection of the claims on the basis that the cited reference does not disclose each and every element of the any of the claims said to be anticipated.

In respect of the Examiner's 102(b) rejection in light of U.S. Patent No. 5,204,852 to Nakagawa *et al.*, Applicants note with respect to independent claims 177 that there simply is no disclosure in U.S. Patent No. 5,204,852 to Nakagawa *et al.* of an instruction set for controlling the computer system as set forth in the steps of the claims. Therefore, there simply can not be an anticipation of the claim. While Applicants assert that the claim is clearly patentable as written, in order to expedite prosecution of this case, and to obtain early allowance of claims, Applicants have amended claim 177 to further clarify the instructions on the disc for the Examiner's read. As Applicants traverse the Examiner's read of the unamended claim, and strongly assert the

patentability of the unamended claim, Applicants reserve the right to prosecution the unamended claim in this application, or any application claim in priority from such application, in the future.

In respect of independent claim 187, from which claims 188 – 202 and 204 - 207 dependent, there is simply no disclosure in U.S. Patent No. 5,204,852 to Nakagawa *et al.* that a material as specified in the claim be positioned on the data storage medium so as to cause a change in bit data read from that which is true to the optical data structure of the locus where the material is placed. The reference simply does not teach “a material capable of existing in a first optical state and a second optical state, the first optical state being convertible to the second optical state upon exposure to an input signal, and the second optical state being spontaneously convertible after a period of time to the first optical state” being “positioned at one or more discrete loci along the data storage medium” to change bit data read.

In respect of independent claim 208 (from which claims 209 – 212 depend), again there is simply no disclosure in U.S. Patent No. 5,204,852 to Nakagawa *et al.* that a light-emissive compound be positioned in a manner to affect bit read. Again, while Applicants assert that the failure of Nakagawa *et al.* to disclose such a material and its use as described in the claim is plain on its face, in order to expedite prosecution of this case, and to obtain early allowance of claims, Applicants have amended claim 208 to further clarify the positioning of the material and the transient nature of the light-emissive effect for the Examiner’s read. As Applicants traverse the Examiner’s read of the unamended claim, and strongly assert the patentability of the unamended claim, Applicants reserve the right to prosecution the unamended claim in this application, or any application claim in priority from such application, in the future.

In respect of independent claim 213 (from which claims 217, claims 219 – 226, claim 228, claims 230 – 237, and claims 239 – 242 depend), there is no disclosure in U.S. Patent No. 5,204,852 to Nakagawa *et al.* of using a light-sensitive compound to effectuate a second set of usable data that is different from a first set of usable data on the disc.

In respect of independent claim 245 (from which claims 246 – 251 depend), Applicants respectfully assert that there is simply no disclosure in U.S. Patent No. 5,204,852 to Nakagawa *et al.* of a means for producing, upon re-reading a portion of the optical recording medium having a

first set of data, a second set of data that is different from the first set of data regardless of the data structure having the first set of data as such means is specified in the specification.

Respectfully, even taking U.S. Patent No. 5,204,852 to Nakagawa *et al.* in view of U.S. Patent No. 5,930,217 to Kayanuma, U.S. Patent No. 5,388,985 to Jaquette, U.S. Patent No. 5,132,954 to Kulakowski *et al.*, U.S. Patent No. 6,580,680 to Van Den Enden *et al.*, or U.S. Patent No. 5,526,329 to Bish *et al.*, which the Examiner cites “to support the position of inherency” can one find anticipation of claims 177, 187 – 202, 204 – 217, 219 – 226, 228, 230 – 237, 239 – 242 and 245 – 251 based on U.S. Patent No. 5,204,852 to Nakagawa *et al.* as a matter of law.

Applicant notes that on interview that the Examiner asserted that the photodegradation of dyes that may overlie optical structure in the address area of a standard optical disc (or comprising dyes in the address area) could result in a change in the data read of the optical disc as the disc drive makes numerous attempts to make sense of the damaged area (see Examiner’s Summary of the interview), suggesting that standard optical discs which have degradable dyes overlying the address area of the disc inherently meet the limitation of the claims as pending. Of course, such argument primarily ignores limitations of the claims such as the instructions of claim 177, that is, the computer instruction for controlling the computer system does not magically arise from placing a cyanine dye on an optical disc. Nor does two sets of usable data just magically arise.

Further, Applicants note that inherent anticipation requires that what is claimed be “necessarily present,” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950 – 1951 (Fed. Cir. 1999) or invariably formed. *Glaxo Inc. v. Novopharm, Ltd.*, 830 F. Supp. 871, 29 USPQ2d 1126 (E.D.N.C. 1993), *aff’d*, 52 F.3d 1043, 34 USPQ2d 1565 (Fed. Cir. 1995), *cert. denied*, 516 U.S. 998 (1995). Inherent anticipation may not be established by probabilities or possibilities. *See, MEHL/Biophile Intl. Corp. v. Milgram*, 192 F.3d 1362, 1365, 52 USPQ2d 1303, 1305 (Fed. Cir. 1999). Applicants respectfully assert that the Examiner’s suggested breakdown theory with data read at a locus of the optical data storage medium suddenly changing simply can not constitute inherent anticipation as a matter of law.

The Examiner has also rejected claims 177 – 180, 184, 187 – 191, 194, 196, 205, 213, 215, 230 – 237, 239, 240, 242 – 245, 247 and 249 – 251 as “clearly anticipated” by U.S. Patent No. 5,963,536 to Vasic *et al.* (see paragraph 11 of the Office Action) under 35 U.S.C. §102(e), “clearly anticipated” by U.S. Patent No. 6,104,686 to Whitcher *et al.* (see paragraph 13 of the Office Action) under 35 U.S.C. §102(e), and “clearly anticipated” by U.S. Patent No. 5,815,484 to Smith *et al.* 35 U.S.C. §102(b) (see paragraph 14 of the Office Action). The Examiner asserts that “Vasic *et al.* ‘536 teach an optical recording disk which allows an [sic] CD player or read only device to create a permanent mark on the disk when it is read/accessible ... The use of phase change recording media or dyes, including cyanine dyes in the copy count area is disclosed.” The Examiner further asserts that “Whitcher *et al.* ‘686 teach an optical recording disk which allows an [sic] CD player or read only device to create a permanent mark on the disk when it is read/accessible,” and that “Smith *et al.* ‘484 contains a reactive layer which turns [sic] opaque to prevent reading of the underlying data ... use of photochromic dyes to initiate this in response to irradiation alone is disclosed.”

Again in respect to independent claims 177 that there simply is no disclosure in any of these three references of an instruction set for controlling the computer system as set forth in the steps of the claims. Therefore, there simply can not be an anticipation of the claim.

In respect of independent claim 187, from which claims 188 – 202 and 204 - 207 dependent, there is simply no disclosure in any of the three references of a material capable of existing in at least a first optical state and a second optical state, the second optical state being spontaneously convertible after a period of time to the first optical state (indeed the Examiner asserts that each references teach a permanent change) that is used to cause a change in bit data read. In respect of independent claim 208 (from which claims 209 – 212) depends, and independent claim 213 (from which claims 217, claims 219 – 226, claim 228, claims 230 – 237, and claims 239 – 242 depend), there is no disclosure in any of the three references of using a light-sensitive compound to effectuate a second set of usable data that is different from a first set of usable data on the disk. In respect of independent claim 245 (from which claims 246 – 251

depend), Applicants respectfully assert that there is simply no disclosure in any of the three references of a means for producing, upon re-reading a portion of the optical recording medium having a first set of data, a second set of data that is different from the first set of data regardless of the data structure having the first set of data as such means is set forth in the specification. Thus none of these references as well can be said to anticipate the embodiments asserted in such claims, and certainly not "clearly anticipate."

In light of the Applicants' arguments, the Examiner is respectfully requested to withdraw all 35 U.S.C. 102 anticipation rejections.

35 U.S.C. §103(a)

• **The Examiner's Position:**

The Examiner has rejected claims 177, 187 – 242 and 245 - 251 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,204,852 to Nakagawa *et al.* in view of U.S. Patent No. 5,213,955 to Hamada *et al.* (see paragraph 10 of the Office Action), and claims 177 – 251 as being unpatentable over U.S. Patent No. 5,963,536 to Vasic *et al.*, in view of U.S. Patent No. 5,213,955 to Hamada *et al.* (see paragraph 12 of the Office Action). The Examiner asserts that it would have been obvious to modify the invention of U.S. Patent No. 5,963,536 to Vasic *et al.* by using other dyes such as those disclosed by U.S. Patent No. 5,213,955 to Hamada *et al.* in place of the cyanine dyes or phase change recording materials used in the medium with a reasonable expectation of success based upon their use in writable optical recording media and the disclosure of equivalence with U.S. Patent No. 5,213,955 to Hamada *et al.*. In respect of U.S. Patent No. 5,213,955 to Hamada *et al.*, the Examiner asserts that the reference teaches use of various cyanine dyes, including indolenic cyanine dyes shown in the specification. He asserts that it would have been obvious to modify U.S. Patent No. 5,204,852 to Nakagawa *et al.* in view of U.S. Patent No. 5,213,955 to Hamada *et al.* in place of the benzoindolenic cyanine dyes used with a reasonable expectation of success based upon their use in writable optical recording media and the disclosures of equivalence within U.S. Patent No. 5,213,955 to Hamada *et al.*.

- **Applicants' Response:**

Applicants respectfully traverse the Examiner's 35 U.S.C. 103 rejections in part on the basis that the Examiner shows no motivation for combining the references in the manner suggested by the Examiner, and that the Examiner is using hindsight reasoning in an attempt to approximate the particular embodiments being asserted in the subject claims.

Applicants fail to see how the addition of U.S. Patent No. 5,213,955 cures the defects that are noted above with respect to at least those elements discussed above with respect to anticipation which are missing from the disclosure of U.S. Patent No. 5,204,852 to Nakagawa *et al.* The Examiner appears to cite the reference solely because it discloses the use of a particular indolenic cyanine dye which is set forth in the specification of the instant specification. The Examiner asserts that one might use such dye in the disc of Nakagawa "in place of the ... cyanine dyes" of Nakagawa (see paragraphs 10 and 12 of the Office Action). Even so, Applicants fail how such discloses, suggests or motives on to obtain the embodiments asserted in the claims at bar. The rote recitation of "reasonable expectation of success" does not lead to obvious, in particular when the problem to be resolved is not even hinted at by the references said to make the claims obvious.

Applicants respectfully understand the Examiner's reasoning throughout the office action to indicate his belief that any disc having the dyes indicated in the patent specification located at any position on the disc must necessarily work in the manner recited in the claims at issue. This argument, respectfully, is simply not with merit. The specification notes in a numerous places that the "output of a particular locus may be changed by including additional compound in the medium" (see, e.g., page 9, lines 3 – 4), that numerous compounds may be used including "dyes, pigments, phosphorescent compounds and light absorptive" compounds (see, e.g., page 12, lines 7 - 9), that certain materials cited in the specification may require activation before the would work in a manner sufficient to cause the effect desired (see, e.g., page 12, lines 29 – 30), that the light-sensitive compound may be chosen from a group of compounds and may be a mixture of different compounds (see, page 13, lines 13 – 24, page 16, lines 11 – 13, and page 19, lines 6 - 7), the activity of the light-sensitive composition may be affected by the polymers and other materials used to produce the optical media (see, e.g., page 12, lines 20 – 31), and that the

amount of compound applied may affect effectuation of the outcome (see, e.g., page 16, lines 17 – 28). In short just with respect to the material, there are numerous parameters that must be taken into account to obtain optical discs having the properties claimed within the present claims. The positioning of the material, the material's activation profile, the speed of the disc read, the optical reader activation laser, the instruction set, etc. are other parameters that may effect whether a disc or method of the present claims may be effectuated.

In short, Applicants respectfully request that the Examiner withdraw the 35 U.S.C. §103 rejections.

Judicially Created Doctrine of Obviousness-Type Double Patenting

• **The Examiner's Position:**

The Examiner has rejected claims 177 -251 under the judicially created doctrine of obviousness-type double patenting on the basis of claims 1 – 82 of U.S. Patent No. 6,589,626, and 1 – 36 of U.S. Patent No. 6,638,593.

• **Applicants' Response:**

Applicants respectfully traverse the Examiner's rejection of claims 177 – 251 under the judicially created doctrine of obviousness-type double patenting. Applicants assert that the claims in such patents are patentably distinct from the prior claims and do not seek coverage for the same subject matter. Further, Applicants assert that the claims being sought would not unlawfully extend a portion of the coverage accorded by any of the claims of either U.S. Patent No. 6,589,626 and U.S. Patent No. 6,638,593.

However, if the Examiner should find the claims pending allowable in the next office action, Applicants will file a timely terminal disclaimer in compliance with 37 C.F.R. §1.321(c) solely for the purpose of expediting issuance.

CONCLUSIONS

An early notice of allowance in the next office is earnestly requested.

Respectfully Submitted,



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